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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/595,310	04/06/2006	Akio Yamashita	12732-329US1 PCTUS7433	7163
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EXAMINER				
CHAN, SING P				
ART UNIT		PAPER NUMBER		
1791				
NOTIFICATION DATE		DELIVERY MODE		
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PATDOCTC@fr.com

# Office Action Summary

**Application No.**

10/595,310

**Applicant(s)**

YAMASHITA ET AL.

**Examiner**

SING P. CHAN

**Art Unit**

1791

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 April 2006.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-26 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-26 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 06 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO/ISD)  
Paper No(s)/Mail Date 4/6/06  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Double Patenting*

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-26 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-5, 7, 10-12, 15, 16, and 22-27 of copending Application No. 10/577,648. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 1-26 of instant application are generic to the method recited in claims 1-5, 7, 10-12, 15, 16, and 22-27 of copending application of 10/577,648. That is, claims 1-5, 7, 10-12, 15, 16, and 22-27 of copending application of 10/577,648 falls entirely within the scope of claims 1-26 of instant application or in other words, claims 1-26 of instant application are anticipated by claims 1-5, 7, 10-15, 16, and 22-27 of copending application

10/577,648. Specifically, claims 1-26 of instant application do not recited the additional steps of claims 1-5, 7, 10-15, 16, and 22-27 of copending application but since the instant claims are open claims and therefore allow for additional steps, which the claims of the copending application are more specific than the instant claims.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-13, 17, and 19-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Rosenfeld et al (U.S. 5,156,720).

Regarding claims 1, 2, 7, 8, 9-13, 17, and 26, Rosenfeld et al discloses a method of producing released vapor deposited films. The method includes providing a substrate of foil, sheet, or plate of an inexpensive co-anodizable metal such as aluminum (Col 4, lines 35-39) depositing a valve metal layer by sputtering, evaporation, and etc. onto the substrate (Col 4, lines 40-43), anodizing the valve metal layer to form a layer of metal oxide layer on the valve metal layer (Col 3, lines 57-59), applying at least one additional layer of material such as oxides, nitrides, carbides, which would act as insulating layer, onto the valve metal oxide layer (Col 4, lines 53-56), for an optical multilayer film, alternating layers of dielectric material with high and low refractive index

are applied to the valve metal oxide layer (Col 5, lines 53-66), attaching a material to the outer surface of the releasable films or layers with adhesive and peeling the film or layer from the valve metal layer with the separation between the valve metal layer and the metal oxide layer and the adhesive used for adhering the material such as polymer, paper, textiles, and wood are one which can be readily removed from the layers such as soluble polymer or one which can be oxidized or decomposed by irradiation to release or detach the release film (Col 4, line 62 to Col 5, line 18) or heat sealable polymer (Col 5, lines 15-18) to allow the peeling of the attached material, and finally transfer to a final substrate after peeling from the attached material (Col 3, lines 34-42).

Regarding claims 3, 4, and 19, Rosenfeld et al discloses the valve metal layer includes tantalum, niobium, zirconium, hafnium, titanium and alloy (Col 3, lines 52-61)

Regarding claims 5, 6, and 20, Rosenfeld et al discloses the additional layer or layers deposited onto the metal oxide layer includes silicon dioxide or SiO<sub>2</sub> (Col 6, lines 62-66).

Regarding claims 21 and 23, Rosenfeld et al discloses the optical layers are formed into anti-reflective coatings, filters, and polarizer (Col 6, lines 5-15), which would inherently includes color filters.

Regarding claim 22, Rosenfeld et al discloses the substrate for supporting the optical films is a plastic substrate. (Col 5, lines 53-57)

Regarding claim 24, Rosenfeld et al discloses an opaque aluminum reflector layer or film with a final high index layer. (Col 6, lines 50-55)

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 14 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosenfeld et al (U.S. 5,156,720) as applied to claim 7 above, and further in view of Herbots et al (U.S. 4,800,100).

Regarding claim 14, Rosenfeld et al as disclosed above is silent as to forming the metal oxide layer between the metal layer and the insulating layer simultaneously with the formation of the metal layer and the insulating layer. However, simultaneously forming layers films is well known and conventional as shown for example by Herbots et al. Herbots et al disclose a combined ion and molecular beam apparatus for depositing material. The method includes using the desired sequence of combined ion beams and molecular beam to thermally enhanced ion beam cleaning or molecular beam cleaning, followed by simultaneous deposition from the ion beam and molecular beam, followed by a switch of either or both beams to different species (Col 18, lines 15-29).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a method simultaneously deposit layers of film with a combined ion beam and molecular beam deposition as disclosed by Herbots et al in the method of Rosenfeld et al to form layered films at a lower temperatures and higher rate. (See Herbots et al, Col 4, lines 44-51)

Regarding claim 18, Rosenfeld et al discloses the metal oxide layer will separate from the metal layer (Col 3, lines 29-33).

7. Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosenfeld et al (U.S. 5,156,720) as applied to claim 7 above, and further in view of Ghyselen et al (U.S. 6,867,067) and Ariyoshi et al (JP 53-31971).

Rosenfeld et al as disclosed above is silent as to either before or after forming the optical film, forming the metal oxide layer after forming the insulating layer or silicon oxide layer. However, forming a metal oxide layer after forming a silicon oxide layer on

a metal substrate is well known and conventional as shown for example by Ghyselen et al and Ariyoshi. Ghyselen et al discloses a method of forming a final substrate. The method includes providing a support of deposited metal (See Ghyselen et al, Col 3, lines 1-10), forming a bonding layer (10) of silicon oxide and implanting atomic or ionic species to form a zone of weakness (See Ghyselen et al, Col 5, lines 10-21), which as disclosed by Ariyoshi et al of implanting oxygen ions into a metal substrate and heating the substrate to form metal oxide layer (See Ariyoshi et al, English Abstract of JP 53-31971), which would form metal oxide layer in the zone of weakness of Ghyselen et al and allow separation of the layers of thin film (See Ghyselen et al, Col 5, lines 22-27). Furthermore, Ghyselen et al discloses the steps for forming the layers and implanting species can be performed in the order specified above or in another order, which for one of ordinary skill reading Rosenfeld et al, Ghyselen et al and Ariyoshi et al would appreciate the various layers of Rosenfeld et al can be deposited prior to implantation of the species and heating to form metal oxide layer, which is an obvious variant.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to form the various layers and using species implantation such as oxygen into the metal layer and heating to form a layer of metal oxide layer on the metal layer, which allow for separation as disclosed by Ghyselen et al and Ariyoshi et al in the method of Rosenfeld et al to provide a simpler and much less expensive means to forming final substrate for optics or optoelectronics. (See Ghyselen et al, Col 2, lines 40-46)



Any inquiry concerning this communication or earlier communications from the examiner should be directed to SING P. CHAN whose telephone number is (571)272-1225. The examiner can normally be reached on Monday-Thursday 7:30AM-11:00AM and 12:00PM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Philip C. Tucker can be reached on 571-272-1095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Sing P Chan/  
Acting Examiner of Art Unit 1791